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ABSTRACT

The distinction between literal meaning, the domain of semantics, and inferred or implicated meaning, the domain of pragmatics, is examined. Grice's (1975) theory of implicated or conveyed meaning as part of an overall account of cooperative communicative behavior is evaluated. A range of data is presented which challenges Grice's theory. Discourse conventions and context determination are highlighted in an analysis of pragmatic inference. The data suggest that pragmatic inferencing plays a much greater role in natural language comprehension than is generally realized. Once the domain of pragmatic theory is extended, Grice's principles of conversation are inadequate to account for comprehension. Other approaches to the problems of inferred meaning are examined. It is concluded that selected aspects of these alternatives must be combined in order to arrive at a satisfactory account of pragmatics. (RW)

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On the interaction of semantics and pragmatics

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CLCS Occasional Paper No.8

Autumn 1983

ON THE INTERACTION OF SEMANTICS AND PRAGMATICS

by

ROSE MACLARAN

0. INTRODUCTION

In understanding what people say we use both our knowledge of language and our extra-linguistic knowledge. To what extent these two kinds of knowledge are separate, or indeed separable, is an open question, and one that can only be fruitfully debated in terms of a theory of natural language comprehension. Grice (1975) distinguishes between literal meaning, the domain of semantics, and inferred or implicated meaning, the domain of pragmatics, and proposes a set of principles which govern inferencing. In this paper I shall present a range of data which are problematic for this semantics/pragmatics distinction. The data suggest that pragmatic inferencing plays a much greater role in natural language comprehension than is generally acknowledged. But once the domain of pragmatic theory is extended in this way, Grice's principles of conversation are not adequate to account for comprehension. In the final section I shall therefore look at some other approaches to inferred meaning and argue that aspects of each of them must be incorporated into a satisfactory account of pragmatics.

1. GRICE

Many of the sentences we hear every day we have never heard before, and yet we understand them. As native speakers of a language we have mastered a set of rules which relate sound and meaning in our language. Part of this grammatical system we have mastered is a set of semantic rules which specify the meanings of words and structures, enabling us to understand new sentences as well as previously heard ones. Clearly, however, to understand what someone means by uttering a sentence, we need to do more than simply understand the words and constructions used. The same sentence uttered in different contexts can convey quite different meanings.

1. It's 8.15.

(1) said to a child whose bedtime is 8.00 may be an order to go to bed; said to someone expected to arrive at 7.00 it could be a reprimand; said to the participants at a seminar due to begin at 8.00 it could be a signal to begin. The sentence in these contexts can thus convey "Go to bed", "You're late" and "Let's begin". However, it would be mistaken to say that the meaning of the sentence therefore depends on the context of use, or that the sentence is ambiguous between these and other potential meanings. Rather, the semantic rules of the language provide a particular semantic interpretation, and then the hearer works out what the speaker might mean by uttering that sentence in that context. It is necessary to draw a distinction between literal sentence meaning, i.e. meaning determined by the linguistic system, and utterance meaning (or speaker's meaning), i.e. the meaning conveyed by the use of a sentence in context. This is the distinction that is conventionally drawn between semantics and pragmatics.

Grice (1975) proposes a theory of implicated or conveyed meaning as part of an overall account of co-operative communicative behaviour. Imagine that I am struggling to undo a bolt, but it will not budge. A friend who has been watching me holds me out a spanner. Knowing him to be rational, I presume he is holding it out to me for a purpose, and I correctly infer that he is suggesting that I use the spanner to undo the bolt. Now, take the same context, only this time he says "I'd use a spanner". Once again I presume there is some point in his behaviour, and in just the same way I infer that he is suggesting that I use a spanner (though that is not what he has literally said). Grice's point is that intentional communication, whether verbal or non-verbal, is a type of co-operative behaviour, to which we expect the participants to make appropriate contributions. He expresses this as the Co-operative Principle, which he spells out with some more detailed maxims:

The Co-operative Principle

"Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged."

The Maxims

QUANTITY

1. Make your conversational contribution such as is required (for the current purposes of the exchange).

2. Do not make your contribution more informative than is required.

QUALITY "Try to make your contribution one that is true"

1. Do not say what you believe to be false.

2. Do not say that for which you lack adequate evidence.

RELATION "Be relevant"

MANNER "Be perspicuous"

1. Avoid obscurity of expression.

2. Avoid ambiguity.

3. Be brief (avoid unnecessary prolixity).

4. Be orderly.

[pp.45f.]

Grice suggests that these are principles which we expect will be observed in rational interaction; and if what is said at first sight appears to violate the principles, then we will reinterpret it so that it conforms. In (1) the literal meaning is an assertion that it is eight fifteen, but why has the speaker made the assertion? The most obvious way the parent's statement of the time can be interpreted by the child as conforming to the maxims is as relevant to his bedtime and therefore as an order to go to bed. The parent has not actually ordered the child to bed - the implicature is cancellable, for the parent can add "But if you like you can stay up this once to watch the film". The reconstruction of the speaker's intended meaning is an inference based on the hearer's knowledge of the literal meaning of what has been said, knowledge of the context of utterance, and expectations of how the speaker is likely to behave.

This account of linguistic communication is thus a two-tier one. There is first a theory of literal meaning - semantics, and then a theory of implicated meaning - pragmatics. Pragmatic interpretation is logically dependent on semantic interpretation, as the hearer has to understand what has literally been said before he can work out what has been thereby implicated. Semantics, however, is autonomous with respect to pragmatics, for semantic interpretation is not dependent on the context of utterance.

In general this seems to me to be the right kind of explanation of linguistic communication, and it has been used successfully in the description of various context-dependent phenomena such as asymmetric conjunction (Wilson 1975), speech act assignment (Searle 1975), disambiguation (Sadock 1978), and figurative

speech (Grice 1975, 1978). However, the theory rests on a notion of literal meaning that is not altogether straightforward. In the next section I want to look at some problems with the notion of literal meaning, which will involve a re-evaluation of the domain of pragmatics.

2. PROBLEMS WITH THE NOTION OF LITERAL MEANING

2.1 Indexicals

Thus far I have distinguished sentences from utterances and shown how an account of the meaning of the latter is dependent on the meaning of the former. However, I have not yet mentioned the intermediate level of propositions. Propositions are what are true or false, what are known, believed or doubted, what are asserted, denied, presupposed and questioned. The same proposition can be expressed by different sentences, as in (2a) and (2b), and conversely, different propositions can be expressed by the same sentence in different contexts, as in (2a) and (2c):

2a. [Michael]
I'm tired.

b. [Sue to Michael]
You're tired.

c. [Sue]
I'm tired.

All languages have indexical expressions - pronouns, tense, definite referring expressions, etc. - whose denotation is context-dependent. To determine what someone has literally said, i.e. what proposition they have expressed, it is necessary to know not only the meanings of the words and structures used, but also what the values of the indexical expressions are. With indexicals like I and yesterday this is quite straightforward - there are linguistic rules which supply a single value for I and yesterday in a given context. However, for most indexicals there are a number of diffferent potential referents in any context:

3a. Remember that guy I was telling you about?

b. We'll be there.

c. I took your shoes to the mender's but they said they wouldn't be ready until Saturday.

In (3a) the speaker could have told the addressee about any number of guys in the recent past. In (3b) we includes the speaker, but who else? And where is being referred to by there? In (3c) how do we work out what the referents of the two occurrences of they are? The meaning of these indexical expressions only takes us part of the way towards determining their referents in a context.

Indexicality has long been considered to fall in the domain of pragmatics, for it has to do with context-dependence, but it has normally been treated quite separately from questions of implicature (cf. Thomason 1977). However, I see no grounds for separating out two areas of pragmatics - the theory of indexical expressions and the theory of conveyed meaning. In both cases knowledge of the context is necessary to determine what the speaker means. The only difference is that in one case contextual knowledge interacts with sentence meaning to determine the proposition expressed, while in the other it interacts with the proposition expressed to determine further implicated propositions or speech act force (cf. Wilson and Sperber 1980). A pragmatic theory must be able to account for both these aspects of context-dependence.

2.2 Contextuals

Indexicals are expressions whose reference shifts from context to context. Clark and Clark (1979) propose a category they call "contextuals" which they say are expressions whose sense shifts from context to context. They discuss in detail the innovative use of denominal verbs:

4a. My sister Houdini'd her way out of the locked closet.

b. The newsboy porched the newspaper.

c. He wristed the ball over the net.
[Said by a tennis commentator.]

d. Battered wives may be stabbed or bottled as well as punched.

They say that the meaning of these verbs can only be determined relative to a context of use and they propose that their use is regulated by the following convention:

> In using such a verb, a speaker means to denote the kind of state, event or process that, he has good reason to believe, the listener can readily compute on this occasion, on the basis of their mutual knowledge, in such a way that the parent noun (e.g. porch or

> Houdini) denotes one role in the state, event or process, and the remaining surface arguments denote others of its roles. [p.767]

That is to say, working out the meaning of the verb depends on (a) knowledge of the parent noun, and (b) co-operation between speaker and hearer.

Other examples of contextuals are noun-noun compounds, denominal adjectives, and possessives (I give possible interpretations in brackets):

5a. elephant house [house for elephants]

b. red-brick house [house made of red brick]
c. country house [house in the country]

d. all-gas house [house run solely on gas]

e. 1940s house [house built in the 1940s]

f. Rolls Royce house [house which often has a Rolls Royce outside it]

6a. rubbishy book [book which is rubbish]

b. Beethoveny music [music which sounds as if Beethoven could have written it]

c. dinnery food [the kind of food you would have for dinner]

7a. my car [the car that belongs to me]

b. my mother [the woman who stands in the role of mother to me]

c. my bank [the bank I bank with]

d. my book [the book I wrote]

As Downing (1977) shows for compound nouns, there is not a finite set of relations that holds between the component expressions. A specific interpretation must be worked out in a context of use.

It could be concluded from this that, for certain expressions at least, it is impossible to give a context-free semantic interpretation. However, I prefer to see these expressions as particularly good examples of the extent to which semantic rules of sentence meaning underdetermine the proposition expressed by a

sentence in context. A context-independent semantic rule can be given for each type of expression Clark and Clark discuss - they themselves give the rule for denominal verbs (see the quotation on p.5). For noun-noun compounds the rule must be something like "N_1 + N_2 = N_2 which has something to do with N_1", so *elephant house* means "house which has something to do with elephants". Of course, these rules are not specific enough to give the full propositional understanding, hence the need to invoke context and infer a more specific understanding, but these expressions are no different from indexicals in this respect (cf. Aronoff 1980, Sag 1981). What is interesting is that Clark and Clark implicitly appeal to the co-operative principle in working out the more specific understandings. They say that the speaker means to denote the state, event or process that "he has good reason to believe, the listener can readily compute on this occasion, on the basis of their mutual knowledge". Here it is clear that pragmatic inference is necessary in the determination of propositional meaning.

2.3 Polysemy

A related, and potentially more serious problem for the notion of literal meaning is raised by polysemous expressions. Take the verb *cut* in the following sentences:

8a. to cut one's finger

b. to cut a cake

c. to cut flowers

d. to cut the grass

What counts as cutting in each case is different. If I take a little nick out of my finger, I've cut it, but an equivalent nick would not be to cut the cake. To cut flowers I have to sever their stalks, whereas if I sever my finger it would be more appropriate to say that I had cut it off. Clearly all these uses of *cut* are related, but unlike the contextuals discussed in the last section, it is difficult to determine a single vague sense which underlies the more specific understandings. Nor does there appear to be one sense that is more basic, with others derived by metaphorical extension, as can be claimed for the polysemy of e.g. *wing* (of a bird, of a building, of an organization).[1] The case of *cut* is not rare. There are many other examples, *open*, *make*, *go*, *line* ..., and in fact it is the most frequent words that are the most polysemous.

A particularly pervasive form of polysemy is discussed by Nunberg (1979):

9a. The window was broken. [window glass]

b. The window was boarded up. [window opening]

10a. The chair was broken. [chair token]

b. The chair was common in nineteenth-century parlours. [chair type]

11a. The book has 300 pages. [book copy]

b. The book has been refuted. [book content]

12a. France has a varied topography. [region]

b. France is a republic. [nation]

13a. Vanity is a vice. [the quality of being vain]

b. His vanity surprised his friends. [the extent of his vanity]

As these examples show, an expression can be used to denote two or more very different types of referent. This is not simply vagueness. Window glass and window frames, books as physical objects and as mental objects, countries as geographical and as political entities, are quite distinct and can have quite different predications made of them. Nor can any one sense be treated as more basic than any other. It is difficult to say what the literal meaning is in these cases, particularly since the indeterminacy is so widespread, both across referring expressions in English and also in other languages. I would be reluctant, because of the generality of this indeterminacy, to say that every lexical entry contains multiple senses corresponding to the type/token, physical object/mental object, quality/extent etc. distinctions. Rather, there are surely some general conceptual inference rules which relate these interpretations. But, as Nunberg points out, there is no way to tell how these expressions are represented in the mental lexicon, i.e. what their literal meanings are. It is here that it becomes impossible to draw the semantics/pragmatics distinction.

What I hope to have shown in this section is how radically underdetermined the meaning conveyed by an utterance is by the linguistic means available. Grice distinguishes the proposition expressed by an utterance from what can be inferred from the fact of that proposition being expressed in a particular context, and proposes a theory of inferred or implicated meaning. But given the indeterminacy of the linguistic system, the hearer has to infer even what proposition is being expressed. The range of

data that a pragmatic theory has to explain is therefore much wider than is suggested by Grice.

3. PRAGMATIC INFERENCE

Grice has proposed general principles which guide how we infer what the speaker is trying to convey. We infer a message that we consider to be informative, truthful, relevant and perspicuous. However, if these principles are applied to particular examples, they turn out to be too general in two ways. First, the degree to which we are truthful, relevant, perspicuous and informative varies from context to context. The requirements of a cocktail party, of a weather forecast and of a business meeting are different. Grice acknowledges this when he states the maxim of quality as: "Make your contribution as informative as is required (for the current purposes of the exchange)" [my emphasis]. And the same qualification could be added to the other maxims. But what is needed is a description of what is required in different talk exchanges. Secondly, informativeness, relevance and perspicuity are notions which are relative to the addressee. What I say will only be informative to you if you do not know it already; it will only be relevant to you if you have certain beliefs and interests which it can be relevant to; it will only be perspicuous if your knowledge structure is organized in a particular way. Crucial to an account of inference is, therefore, an account of the context in which an utterance is understood. I shall take these two points in turn.

3.1 Discourse conventions

First, the question of what is required in different talk exchanges. There has been increasing interest in recent years in the characterization of discourse of all kinds - oral and written, monologues and conversation, formal and informal. Though text-grammarians, ethnographers of communication and conversational interactionists probably would not be pleased to be lumped together, from the perspective of pragmatic inference their work has much in common. They are all describing the norms of discourse or conversation in a particular domain. Thus Van Dijk's (1977) text-grammar is an attempt to characterize well-formed discourse, Sinclair and Coulthard (1975) provide a model of classroom interaction, and Levinson (1979) outlines different activity types. If these models are not simply theoretical constructs but reflect conventions of discourse that speakers and hearers subconsciously adhere to and expect their interlocutors to adhere to, then they will be integral to a description of how we interpret discourse. I shall give two examples of what I mean by this.

Sinclair and Coulthard (1975) say that classroom discourse has a three-part exchange structure - initiation, response and feedback [p.68].

14. T. What makes a road slippery?

P. You might have rain or snow on it.

T. Yes, snow, ice.
Anything else make a road slippery?

P. Erm oil?

T. Oil makes it very slippery when it's mixed with water, doesn't it?

This interaction consists of two exchange sequences. The first is quite straightforward - question, reply, evaluation. (It is perhaps worth pointing out, though, that the teacher's question is quite different in function from a true information question, for in this case the teacher knows the answer he wants and can thus elicit and evaluate the reply.) The second exchange is a sequence of three questions. And yet, because of the conventions of this type of discourse, we (and the participants) interpret the pupil's erm oil? as a response to the first question, and the teacher's follow-up as a positive evaluation of the reply. So although the sentence types used in the second exchange are not those normally associated with replies and evaluations, our expectations about the structure of this kind of interaction guide us in interpreting the force of the utterances.

Keenan (1976) describes a culture in Madagascar where at first glance it appears that the maxim of informativeness is continually broken. She observed the following utterances:

15a. [A mother to her son, referring to her husband]
Is the person still sleeping?

b. [A young boy, referring to his sister]
There is a girl coming.

In our own culture we refer to people according to their relationship to us, and if we do not use a relationship name it is inferred either that the person bears no relation to us or that we have reason to conceal the relationship.[2] However, the Malagasies appear to have no such convention and therefore do not make inferences from what to us are vague references. Once again, discourse expectations influence what pragmatic inferences we make.

Clearly, then, knowledge of social and cultural conventions

governing discourse is vital to proper understanding, particularly in the determination of speech act force and conversational implicature.

3.2 Context determination

Shared knowledge and beliefs about cultural and discourse conventions can be taken to be part of the common ground or context in successful communication. But, as I said in section 3, if the speaker is to be perspicuous, relevant and informative he must be aware of the addressee's knowledge, beliefs and concerns. Clark and Marshall (1981) identify the context with the set of propositions mutually known by the conversational participants, the common ground they know they share. They say that mutual knowledge is necessary because if I use the expression the man next door to refer to Chris James, who has just moved in, my reference will only be successful if I know that you know about the new neighbour, and also if you know that I know about the new neighbour. Otherwise you could think I was talking about the previous person who lived next door.[3] Thus the speaker must be aware of the addressee's perspective.

While mutual knowledge facilitates communication, I do not believe it is a precondition of successful communication. Imagine an English speaker in a foreign country who asks a passer-by "Do you speak English?" As Sperber and Wilson (1982) point out, she would not do so if they had mutual knowledge of English, though according to Clark and Marshall she cannot safely do so unless they do. The fact is that speakers risk being misunderstood. They may treat the common ground as larger or smaller than they know it to be, they may presuppose propositions they know are not mutually known, but unless the hearer challenges the speaker, the common ground will simply change to make the utterance felicitous. In such a circumstance mutual knowledge is the result rather than the prerequisite of comprehension.

Mutual knowledge is also too broad a definition of context.

16. Ann wants to take a bath too.

To understand what the speaker means by uttering (16), the hearer has to infer the referent of Ann, he has to decide whether the speaker means that Ann want to immerse herself in water or remove a bathroom fixture, he has to infer the scope of too, as well as drawing other inferences such as that the addressee is being warned not to use all the hot water. Now, the speaker and hearer might mutually know several Anns, but to find the referent of Ann in (16) the hearer does not have to check through all these Anns. If the utterance is felicitous there will be only one salient Ann. Similarly, although the speaker and the hearer may

have mutual knowledge of Dublin or of motor-bike mechanics, the hearer will not use this knowledge if he is to make the relevant inferences from (16). The knowledge brought to bear in processing the utterance must only be that which allows the relevant inferences to be made.

The problem of how to constrain inferencing, how to make selective use of the context, has received a lot of attention in artificial intelligence. An answer is provided by expectation-based models of comprehension (cf. Schank and Abelson 1977, Minsky 1975, Charniak 1972). Here large amounts of background knowledge are organized into frames or scripts, typical scenarios, which are selectively brought to bear in the understanding process. For example, suppose you say:

17. I went to that new restaurant on the Quays last night. We had delicious hamburgers and the bill was not too bad.

Mention of a restaurant will trigger the restaurant script, and so a scenario containing waiters, menus, hamburgers, tables for two, etc. is made available. had ... hamburgers is understood as "had hamburgers to eat" because according to the restaurant script hamburgers are something you have to eat in restaurants (cf. we had a table for two), and the definite reference the bill poses no problem since the existence of a bill has been inferred in virtue of the restaurant script being invoked. Hearers thus make inferences from the overall picture to what speakers might be trying to say - hence this being called an expectation-based or "top-down" model. The scripts or frames are blocks of knowledge which fill in what has not been explicitly said.

This model provides an explanation of how the indeterminacy of the examples I discussed earlier is resolved. An interpretation of (3c) which would be consistent with a shoe-mending script is for the two pronouns to refer to the mender's and the shoes in that order.[4] Similarly, for the vague expressions such as country house, my car, cut, specific interpretations will occur in different scripts. Semantic and pragmatic information is blended.

This expectation-based approach has been very successful in modelling natural language processing in limited domains. Undoubtedly we do chunk our world knowledge, and we do have expectations about what our interlocutors are going to say. However, they do not necessarily say what we are expecting them to say, and we can understand them nonetheless. Clark (1975) compares the following three examples:

18a. I looked into the room. The ceiling was very high.

b. I walked into the room. The windows looked out to the bay.

c. I walked into the room. The chandeliers sparkled brightly.

Rooms necessarily have ceilings, usually have windows, but rarely have chandeliers. While a ceiling and windows would be part of a room frame or script, a chandelier would not. Yet there is no difficulty in inferring that the chandeliers are part of the room. Furthermore, there are no grounds for saying that the process of inference is different in the three cases. Clark proposes that in cases like (18c) the hearer makes a backwards inference or bridge from mention of the chandelier to the previous sentence, and that the inferential link made is the simplest possible one compatible with his background knowledge. But if a general principle of bridging is necessary to explain (18c), surely it can be generalized to the other cases covered by frames or scripts. In short, on the frames approach an inference is licensed by a prior associative link holding between two individuals or propositions in the conceptual system. But we forge new associative links exactly by making inferences in new situations, and so there must be some more general principle governing inference, at least in these cases.[5]

4. CONCLUSION

I seem to have come full circle. I began by saying that Grice's principles were so general that they were not sufficiently predictive. Grice's co-operative principle can be summarized as "say something appropriate", and while that probably is a guiding principle, it is necessary to go further and specify what counts as appropriate in different contexts. However, I am now criticizing the frames approach for specifying so narrowly what it is appropriate to talk about in any context that it fails to explain how novel utterances can be understood.

Both approaches are probably correct, for they are complementary. Communication is a mixture of convention and innovation. In verbal communication there are on the one hand conventions governing the language system (conventions which relate forms and meanings within a language) and on the other conventions regulating the use of the language system. These latter pragmatic conventions vary from very general behavioural norms, such as those proposed by Grice, to more culture-specific, discourse-specific, and even group-specific norms governing how we express ourselves in any context, and they interact with our background knowledge and beliefs about the world, which are themselves conventionalized to a varying degree. The more a speaker stays with highly conventionalized messages and forms of

expression, the more the addressee's expectations about the communicative event will be fulfilled, i.e. the more the addressee will make the correct inferences about what is being said. Conversely, the more the speaker departs from convention, the less the addressee will be constrained in the inferences he makes and therefore the more likely misunderstanding is to occur. A description of these conventions of language use is integral to a theory of pragmatics, just as the description of meaning conventions is integral to a theory of semantics.

As Morgan (1978) shows, conventions governing the use of expressions can become meaning conventions of the language. For example, it is customary in our culture to greet someone by inquiring after their health. At one time there was a range of ways people expressed this inquiry, including how is it with you?, how doest thou?, how fare you?, how do you?, and how do you do?. Gradually, however, how do you do? became the accepted form, and now it is no longer an inquiry about health but simply a greeting equivalent in meaning to hello. (It is interesting that how are you? seems to be following the same pattern.) Similarly, the expression to go to the bathroom, which was originally used euphemistically in American English to implicate to excrete, has come to mean what it used to implicate, since it is now possible to say non-metaphorically the dog went to the bathroom on the living-room floor. Because of this gradual shift by which an expression takes on its implicated meaning as its literal meaning, thereby losing its previous literal meaning, it is not always possible to distinguish meaning conventions from usage conventions, i.e. the semantic from the pragmatic.

It is in terms of a scale of conventionalization that the problems of indeterminacy of meaning I raised in the first half of this paper should be viewed. While the innovative use of denominal verbs and noun-noun compounds depends both on a semantic rule and an inference procedure, particular uses become conventionalized, so that inference is no longer necessary in working out their denotation. At one end of the scale there are innovative expressions like to porch a newspaper and the Rolls-Royce house, whose interpretation is very context-dependent; in the middle there are conventionalized expressions like to xerox and daisy chain, which appear to have a fixed lexicalized sense, though their meaning is transparent; and at the other end there are expressions like to boycott and sugar daddy, which are complete idioms, for their meaning is no longer a function of the meanings of their constituent parts and the derivation rules of the language. A similar explanation can be given of polysemy. We have particular conventionalized ways of cutting grass, hair and cakes, and thus cultural conventions determine how we give specific interpretations to the linguistic expressions. When two culturally-determined interpretations are perceived to be sufficiently distinct, a sense division occurs, at which point a convention of the use of language becomes a convention of the language. This seems to have happened with the verb heave, where only the nautical sense retains the irregular past tense form:

19a. I heaved myself in through the window.

b. The ship hove into sight.

Similarly, for many people the sense of cut in cutting cards is not related to that of cutting a finger. But it is impossible to draw a clear boundary between meaning conventions and usage conventions, particularly since they vary not only in time but also from speaker to speaker. It should not be concluded from this that there are no context-free semantic rules. On the contrary, such semantic rules underpin linguistic usage. The point is simply that they are less determinate than has normally been proposed.

Reddy (1979) points out that there are two quite distinct views of language. The first he calls the conduit metaphor, since according to it language is a conduit for thoughts. What happens in a linguistic exchange is that the speaker has a thought, parcels it up in language, and sends it to the addressee, who undoes the parcel to recover the original thought. The prevalence of this view of language can be seen by the number of expressions we have such as the following:

20a. putting one's thoughts into words

b. getting one's thoughts across

c. impenetrable prose

d. empty words

The alternative view, which Reddy advocates, is that language bears the relation to thought that a blueprint does to whatever it is a plan of, that is to say, it is only a partial specification. Understanding is not a question of decoding but of reconstructing a message. Clearly it is the latter view that I am in sympathy with. Given the indeterminacy of the linguistic code, given the degree to which semantics underdetermines the meaning conveyed, and given the range of extra-linguistic information that has to be brought to bear in comprehension, it is amazing that we understand each other as well as we do.

Notes

1. See Rummelhart (1979) for a fuller discussion of this issue, in which he is very critical of the notion of literal meaning.

2. There can be other implicatures, for example when someone is used instead of the person's name:

   [Father sleeping in front of TV. Mother to child:]
   Someone's enjoying Match of the Day.

3. Clark and Marshall in fact argue that nothing less than an infinite set of propositions or mutual knowledge in the sense of Schiffer (1972) will do if reference is to successful.

4. Because of the complexity of pronoun resolution, some expectation-based models have been refined to include levels of focus of the discourse referents, cf. Grosz (1977), Reichman (1978).

5. See Wilson and Sperber (1980), Sperber and Wilson (forthcoming) for a general theory of natural language inference.

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